

FIGURE 1 (PRIOR ART)

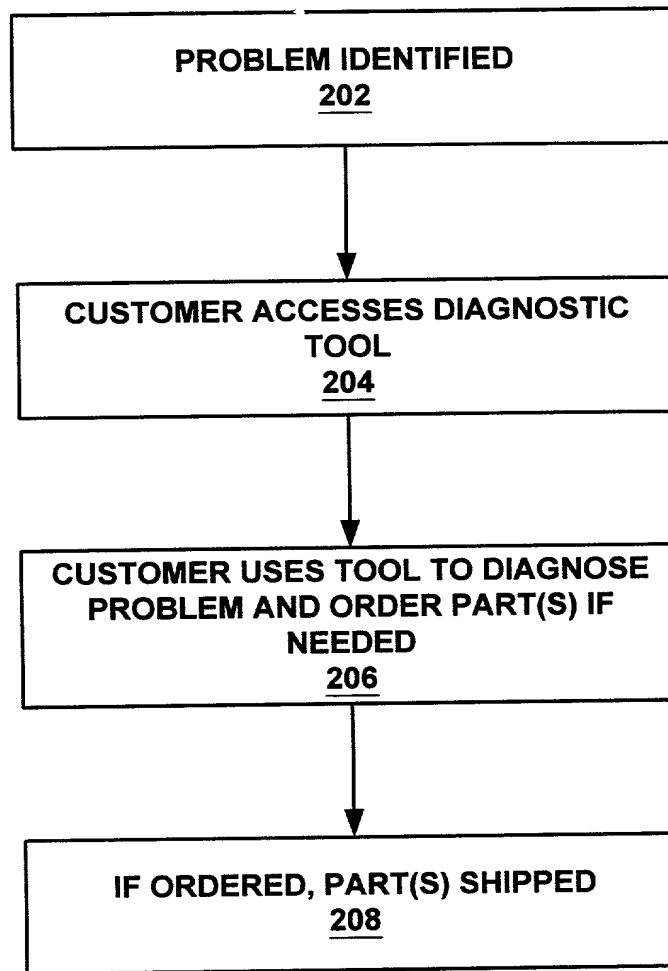
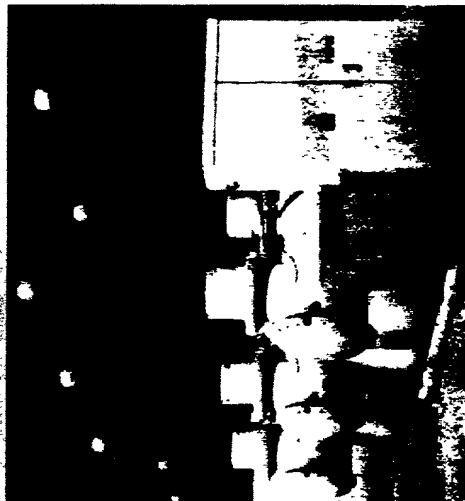


FIGURE 2

300

Welcome to ABB's CBE for the 2300SF Circuit Breaker



330

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FIGURE 3

Figure 4b

2300SF Moisture content

Moisture content

I. Low pressure system

- A. The moisture content in the SF6 low pressure system should be below 300 ppm. If the moisture exceeds this, the gas must be dried. Refer to the appropriate instruction book for the drying procedure as identified on the breaker nameplate.

II. High pressure system

- A. The moisture content in the SF6 high pressure system should be less than 60 ppm. Refer to the appropriate instruction book for the drying procedure as identified on the breaker nameplate.

III. See the field advisory on moisture content in the 2300SF/ 242SF circuit breaker.

456

1. Verify the accelerating spring going solid. To do this, close the breaker and measure the dimension from the outside of the spring plate to the outside of the accelerating spring cover ("X"). Then measure the dimension from the outside of the accelerating spring cover to the lever box ("Y"). Subtract "X" from "Y". The dimension should be no less than 13 1/4". If it is less, there is a possibility the spring is going solid. This is not a good condition since it may cause the spring to become weak. Drawing 457

- c. The instruction book for reference is IB # 33-456-C4H. — 458

13. Perform timing tests as indicated in section 8 of FPE 89-5. — 459

FIGURE 4c

PILOT VALVE & ADAPTER KIT 5861B81G01

For all AA-7, AA-10, AA-14, & CAS-8 Mechanism Control Valves on
Oil Circuit Breakers
and
138 / 230 kV Dead Tank Gas Breakers with 'AA-10R80' Mechanisms*

- * Except 362kV and above of Type 'SF' and 'SFA' Gas Circuit Breakers
with 'AH-7' and 'AH-10' Mechanisms

Kit Description

This kit contains parts and instructions for easy replacement of obsolete pilot valves used on control valves on the above mechanisms on oil and gas circuit breakers. The kit contains all parts and adapters necessary to install the modern 'ABB' pilot valve which is included. An adjustable resistor is supplied to reduce the closing control voltages for 48, 125, and 250 VDC applications. Connection instructions are illustrated on Page 9. A manual override push button is located on the pilot valve on the opposite side of the solenoid coil. The coil and push button location is reversible if so desired.

Safety Precautions

Safe operating practices should be followed at all times when performing maintenance on the breaker.

Before starting the pilot valve replacement procedure, be sure to:

1. Place the breaker in the open position
2. Isolate the breaker from the system by opening the disconnect switches
3. Solidly ground all bushings
4. Remove all AC and DC power from the breaker
5. Open the air reservoir drain valve and exhaust the air to zero psig

Illustrated Parts Assembly

Find the page with an illustration that matches your mechanism and pilot valve combination among the enclosed pages. Some of the later vintage mechanisms may have Norgren pilot valves and adapters. Discard these parts and replace as shown. Connect the pilot valve coil as shown on Page 9.

FIGURE 5a

"AA-7" MECH WITH "ROSS" CONTROL VALVE

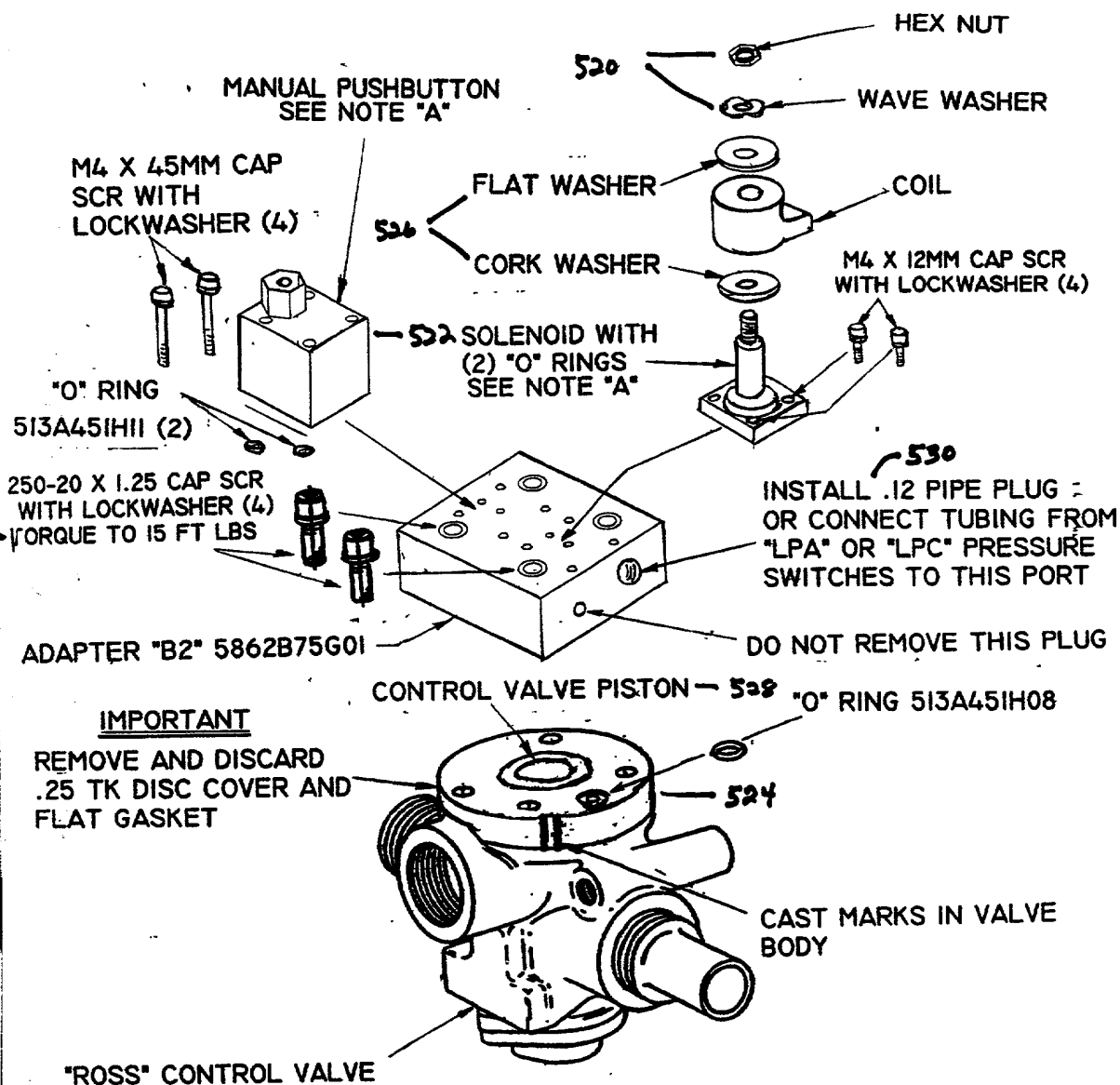


FIGURE 5b



FIGURE 6a

Order form

Ordering Form

Send quotation to:

Company Name: - 620

600b

Contact Name: - 622

Shipping address: - 624

Billing Address: - 626

E-mail: - 628

Telephone: - 630

Fax: - 632

Payment: - 634

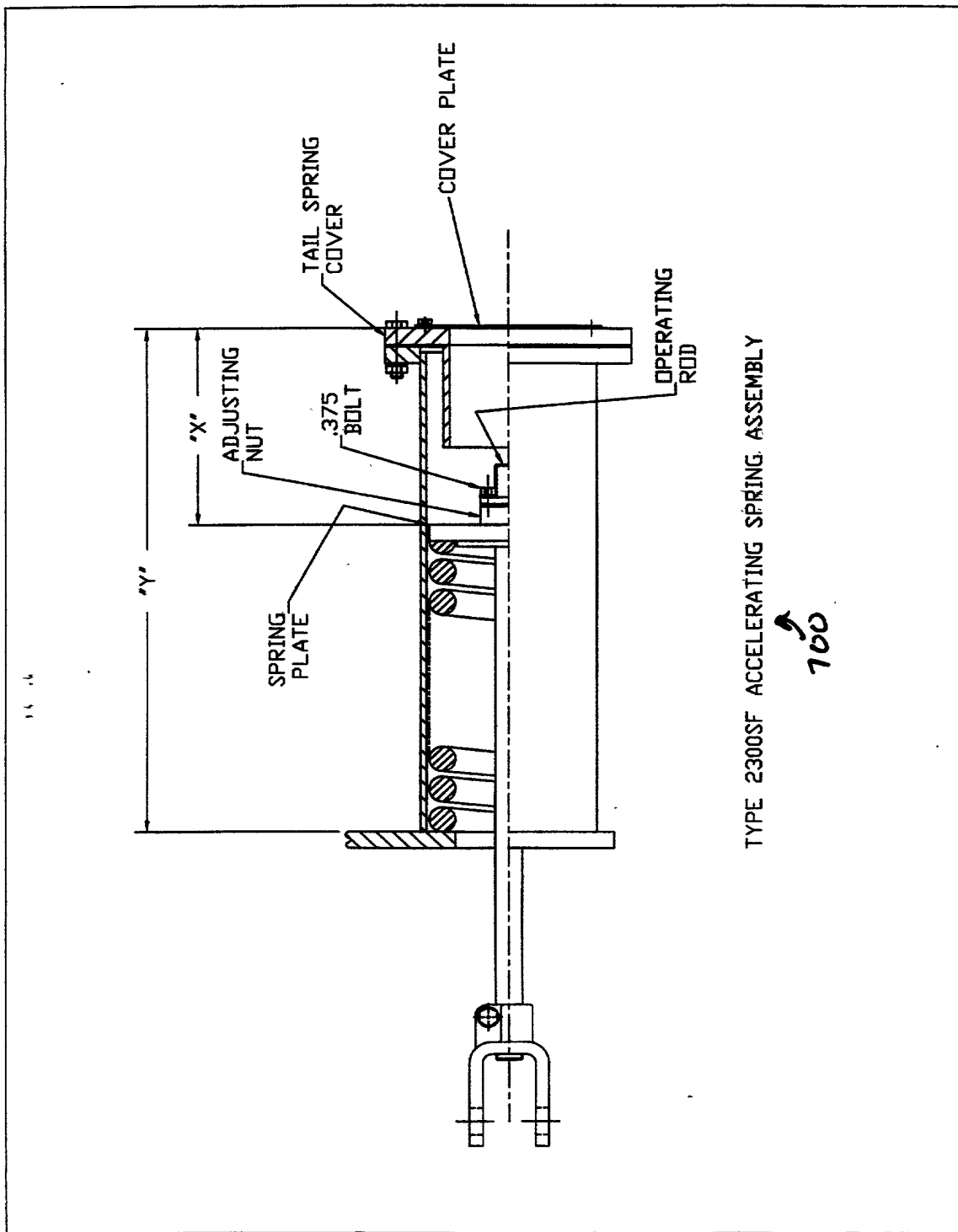
VISA, M/C, AMEX

Expiration date: - 636

Name on card - 638

Card number: - 640

FIGURE 6b



TYPE 2300SF ACCELERATING SPRING ASSEMBLY

700

FIGURE 7

FP-E-89-5 Type 2300SF15000 /17500 / 20000 & 242SF50 / 63 Major Maintenance Checklist	
Station _____	Breaker I.D.# _____
Date(s) of Maintenance _____	Serviced by _____
1. Nameplate Data <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>a. Breaker Type _____</p> <p>Year of Manufacture _____</p> <p>Serial / S.O. _____</p> </div> <div style="width: 45%;"> <p>Amp _____</p> <p>I.B. _____</p> </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>b. Mechanism Type _____</p> <p>Control Diagram _____</p> <p>Compressor & Heater Voltage _____</p> <p>Operation Counter Reading _____</p> <p>Air Compressor Hours _____</p> </div> <div style="width: 45%;"> <p>I.B. _____</p> <p>Control Voltage _____</p> <p>as found _____ as left _____</p> </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>c. SF₆ System</p> <p>Control Diagram _____</p> <p>SF₆ Low Pressure _____ psig</p> <p>SF₆ High Pressure _____ psig</p> </div> <div style="width: 45%;"> <p>Compressor Hrs _____</p> <p>Temperature _____</p> <p>Temperature _____</p> </div> </div>	
2. General Condition of Breaker _____ _____	
CAUTION <p>Prior to performing inspection of the breaker, trip the breaker and open adjacent breaker disconnect switches. Solidly ground all bushing top terminals to remove the residual electrical charge. (If not grounded, bushings can retain an electrical charge which may cause serious shock to a workman.) Open all A-C and D-C switches, and close the main hand-operated air shut-off valve between the air reservoir and mechanism. Bleed trapped air by depressing the manual over-ride push button on the pilot valve.</p>	
3. External Checks: 3.1 Pre-Maintenance Tests <div style="display: flex;"> <div style="width: 30%;"> <p>a1. Leak check</p> <p>Location of leaks found</p> </div> <div style="width: 70%;"> <p>_____</p> <p>_____</p> <p>_____</p> </div> </div>	

FIGURE 8

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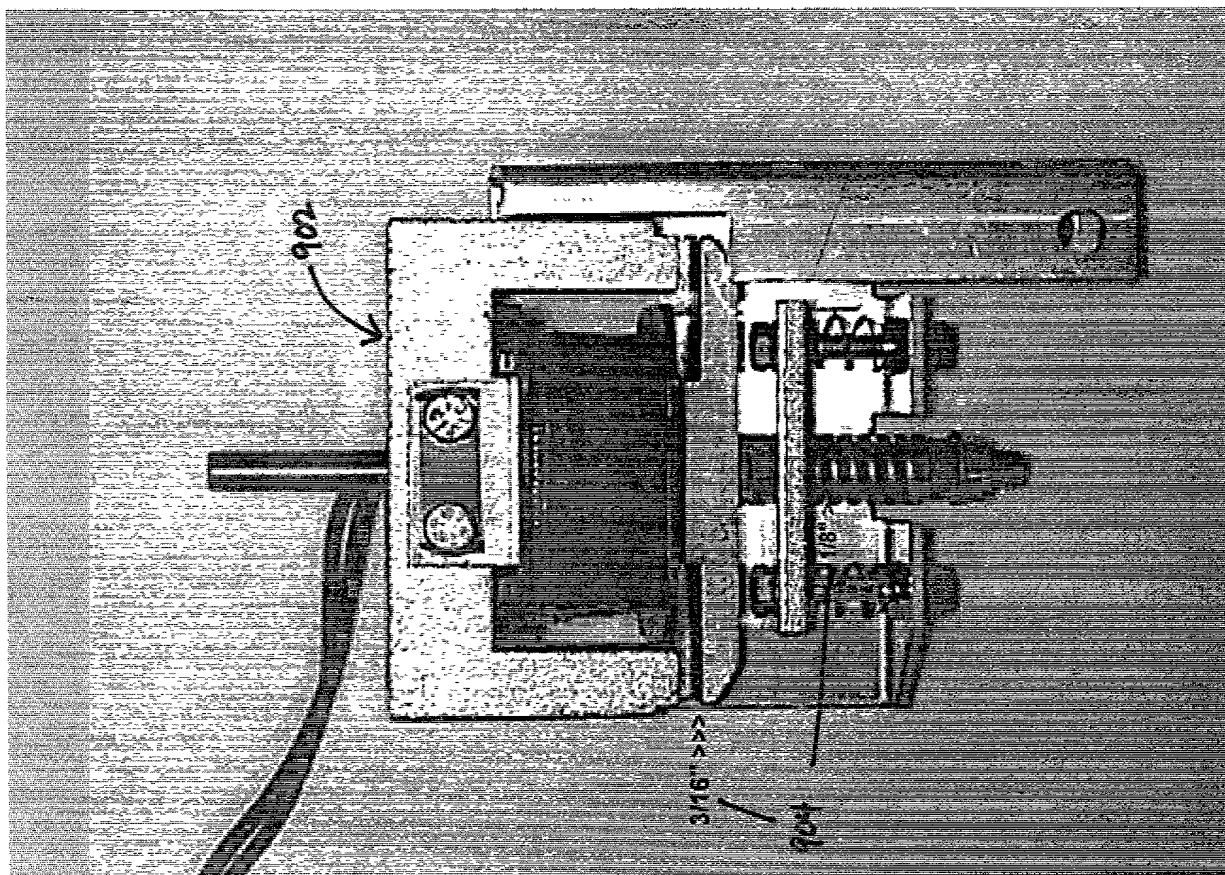


FIGURE 9